

Applicant: Birnbaum et al.
Application Serial No.: 10/083,723
Filing Date: February 25, 2002
Docket No.: 1120-8
Reply to Non-Final Office Action mailed January 13, 2005
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REMARKS

The non final Office Action mailed January 13, 2005 and the references cited therein have been carefully considered. Claim 1 has been amended in a sincere effort to further clarify that which Applicants regard as the invention.

Support for this Amendment is found generally within specification, claims, and drawings, as originally filed. Specifically, support for the amendments to Claim 1 are provided at page 4, lines 13-26; page 8, lines 7-20; page 10, line 21 through page 11, line 9 of the specification and shown in Figures 2a, 2b, 3, 4 and 5.

Claims 18 and 19 were indicated as reciting allowable subject matter and were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including limitations of the base claim and any intervening claims. The conditional allowance of Claims 18 and 19 is acknowledged and gratefully appreciated.

Claims 1, 2, and 4-8 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,417,222 to Dempsey et al. (*Dempsey*). Claims 1, 2, 4, 5, 7-17, and 20-25 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,113,869 to Nappholz et al. (*Nappholz*).

The present invention is directed to a method of processing heart rate information in a portable computer device comprising monitoring by a wearable heart rate monitor and wirelessly transferring the heart rate information between the wearable heart rate monitor and the portable computer device. The method includes the steps of initiating a connect mode in the wearable heart rate monitor, initiating transfer software in the portable computer device, transferring the setting information bidirectionally between the wearable heart rate monitor and the portable computer device, and processing the heart rate information in the portable computer device. The connect mode enables a wireless communication link to be established

with the heart rate monitor, and the transfer software controls the transfer of information between the wearable heart rate monitor and portable computer device through the wireless communication link. The information includes setting information adapted to program the wearable heart rate monitor, as now defined by amended Claim 1.

Dempsey relates to a patient monitoring system that interfaces a telemetry unit 10 with a portable computer 12 shown in Figure 1. When the I/O ports 40, 42 of the telemetry unit and portable computer 12 are interfaced through a radio frequency, infrared, or optical link, the personal computer 12 receives monitored information from the telemetry unit 10 and causes a selected indication of this information to be displayed. Keyboard 50 inputs may be applied through I/O port 42 to I/O port 40, from I/O port 40 to processor 22, and may be utilized to change the mode of monitoring from a diagnostic mode to an ECG monitoring mode or, where the monitor 16 is adapted for monitoring a variety of physiological conditions, to change the condition being monitored. The outputs from keyboard 50 may also be utilized to control the processor 22 in the telemetry unit 10. Thus, setting or programming information is only transmitted to the monitor from the computer.

Thus, it is respectfully submitted that *Dempsey* does not teach or suggest the bidirectional transfer of setting information adapted to program a heart rate monitor between a wearable heart rate monitor and a portable computer device, as now defined by amended Claim 1; described at page 4, lines 13-26; page 5, lines 5-8; page 8, lines 7-10 and lines 15-20; page 10, lines 21-29 of the specification; and shown in Figures 2A, 2B, 3, 4, and 5.

Nappholz relates to an implantable ambulatory electrocardiography device (AECG) that senses electrocardiographic signals from one or more subcutaneous sensors to detect cardiac arrhythmias. The device includes telemetric capabilities to communicate warning signals to an external device when such arrhythmias are predicted. The implantable AECG monitor communicates with multiple components including a programmer/analyzer, which sets control variables in the monitor to determine the behavior, response, functions, and operations performed by the monitor. The external programming device downloads control

programs into the implantable device to tailor its execution for a desired cardiac therapy, as described at column 4, line 61 through column 5, line 2.

The system may also download program code from the external programmer 20 to the implantable AECG, as shown in Figure 10. Specifically, the implant receives from the external programmer 20, downloaded program object code and other control information to govern data acquisition by the implant. Under the direction of commands from the external programmer, the implant replies with acquired and processed physiological data, as described at column 16, line 1, through column 17, line 55. Thus, as in *Dempsey*, *Nappholz* does not disclose the bidirectional transfer of setting information adapted to program a heart rate monitor between a wearable heart rate monitor and a portable computer device, as now defined by amended Claim 1.

The capability of wirelessly transmitting setting information to the implantable AECG monitor in *Nappholz* is clearly necessary since, once implanted, the monitor becomes inaccessible by wired means. However, such a requirement is not present in the wearable heart rate monitor of the present invention since it may be programmed via wired means even after being applied to, for instance, the wrist.

In addition, numerous advantages are provided by the bidirectional transfer of setting information to and from the wearable heart rate monitor of the present invention, which include simplifying the process of programming the heart rate monitor, reducing the amount of time required by the user to initialize the monitor prior to use, and enabling the user to readily determine the current programming settings in the monitor, as described at page 4, lines 13-26 and page 8, lines 7-20 of the specification. Similarly, providing the capability of not only transmitting setting information to the heart rate monitor, but also receiving this information from the heart rate monitor, enables the verification of programming data once programmed into the heart rate monitor following initialization. It is respectfully submitted that these advantages were not addressed in *Nappholz* since the implantable monitor therein

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merely fulfilled the necessary requirement of being able to be programmed following implantation in the user.

Applicants respectfully note that in order to support a claim of *prima facie* anticipation, a single reference must teach or enable each of the claimed elements as arranged in the claim interpreted by one of ordinary skill in the art. Further, in order to support a claim of *prima facie* obviousness, the cited references must teach or suggest each and every element of the invention, and there must be a motivation in the references or the prior art to combine the references and the prior art as suggested.

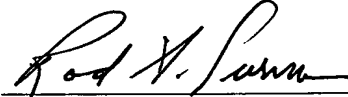
However, nothing in the art of record would teach or suggest, either alone or in combination, a method of processing heart rate information in a portable computer device, which includes transferring information bidirectionally between the wearable heart rate monitor and the portable computer device, wherein the information includes setting information adapted to program the wearable heart rate monitor, as now defined by amended Claim 1.

Applicants respectfully submit that Claims 2-25, which ultimately depend from Claim 1, are patentable over the art of record by virtue of their dependency from Claim 1. Further, Applicants submit that Claims 2-25 define additional patentable subject matter in their own right. Therefore, it is respectfully requested that the rejection of Claims 1, 2, 4-17, and 20-25 under 35 U.S.C. §102(b) and the rejection of Claim 3 under 35 U.S.C. §103(a) be reconsidered and withdrawn.

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In view of the foregoing Amendment and remarks, entry of the amendments to Claim 1; favorable consideration of Claim 1, as amended; favorable reconsideration of Claims 2-17 and 19-25 and allowance of pending Claims 1-25 are respectfully and earnestly solicited.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Rod S. Turner", is written over a horizontal line.

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